



UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office

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B2M1/1105

EXAMINER

KARLSEN, F

PAPER NUMBER

2213

22

DATE MAILED: 11/05/96

This is a communication from the examiner in charge of your application.
COMMISSIONER OF PATENTS AND TRADEMARKS

☐ This application has been examined ☒ Responsive to communication filed on 7-25-96 ☒ This action is made final.

A shortened statutory period for response to this action is set to expire 3 month(s), — days from the date of this letter.
Failure to respond within the period for response will cause the application to become abandoned. 35 U.S.C. 133

Part I THE FOLLOWING ATTACHMENT(S) ARE PART OF THIS ACTION:

- ☒ Notice of References Cited by Examiner, PTO-892.
- ☐ Notice of Draftsman's Patent Drawing Review, PTO-948.
- ☐ Notice of Art Cited by Applicant, PTO-1449.
- ☐ Notice of Informal Patent Application, PTO-152.
- ☐ Information on How to Effect Drawing Changes, PTO-1474.
- ☐

Part II SUMMARY OF ACTION

- ☒ Claims 78-83, 87-96 are pending in the application.
Of the above, claims 83, 89, 94, 95 are withdrawn from consideration.
- ☒ Claims 1-77, 84-86 have been cancelled.
- ☐ Claims are allowed.
- ☒ Claims 78-82, 87, 88, 90-93, 96 are rejected.
- ☐ Claims are objected to.
- ☐ Claims are subject to restriction or election requirement.
- ☐ This application has been filed with informal drawings under 37 C.F.R. 1.85 which are acceptable for examination purposes.
- ☐ Formal drawings are required in response to this Office action.
- ☐ The corrected or substitute drawings have been received on . Under 37 C.F.R. 1.84 these drawings are ☐ acceptable; ☐ not acceptable (see explanation or Notice of Draftsman's Patent Drawing Review, PTO-948).
- ☐ The proposed additional or substitute sheet(s) of drawings, filed on , has (have) been ☐ approved by the examiner; ☐ disapproved by the examiner (see explanation).
- ☐ The proposed drawing correction, filed , has been ☐ approved; ☐ disapproved (see explanation).
- ☐ Acknowledgement is made of the claim for priority under 35 U.S.C. 119. The certified copy has ☐ been received ☐ not been received ☐ been filed in parent application, serial no. ; filed on .
- ☐ Since this application appears to be in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under Ex parte Quayle, 1935 C.D. 11; 453 O.G. 213.
- ☐ Other

EXAMINER'S ACTION

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1. This application contains claims directed to the following patentably distinct species of the claimed invention:

1. The species wherein the substrate and contact are formed of silicon.
2. The species wherein the substrate and contact are formed of germanium.
3. The species wherein the substrate and contact are formed of silicon on sapphire.
4. The species wherein the substrate and contact are formed of silicon on glass.
5. The species wherein the substrate and contact are formed of ceramic.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, at least claims 78, 87 and 92 appear to be generic.

Applicant is advised that a response to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

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Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

2. During a telephone conversation with Mr. Stephen A. Gratton on October 21, 1996 a provisional election was made with traverse to prosecute the invention of the species wherein the substrate and contact are formed of silicon, claims 78-82, 87, 88, 90-93 and 96. Affirmation of this election must be made by applicant in responding to this Office action. Claims 83, 89, 94 and 95 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 78-82, 87, 88, 90-93 and 96 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elder in a first set in view of Nakano in a second set and Blonder et al., Bindra et al., or Anschel et al. in a third set. The first set shows a test socket for a die wherein test contacts are mounted on a film. The second set shows test contacts on a substrate wherein both

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are made of silicon. The contacts have a penetration limiting planar surface. The third set shows penetration limiting contacts with plural points. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have adapted the substrate and contact structure of the second set to the apparatus of the first set because such would enable testing without differential thermal expansion and to adapt the plural contact feature of the third set to the resulting apparatus because such would enable more reliable contact. The height of the raised portion would in accord with the teaching of the second set be of an appropriate amount. That which is being tested is considered a matter of choice. Recessed metal bondpads are old and well known in the art and would be included in that normally tested with an apparatus of the above combination.

5. Claims 78-82, 87, 88, 90-93 and 96 are further rejected under 35 U.S.C. 103(a) as being unpatentable over Nakano in a first set in view of Blonder et al., Bindra et al. or Anschel et al. In a second set. The references were discussed above. It is additionally noted that Nakano can be used to test wafers or chips as stated on page 2 at lines 3 and 4. One skilled in the art would realize that the test probe and the chip would have to be held together somehow. For instance, the chip might be placed on a vacuum chuck and the test probe held above and the chuck raised until proper contact is made. The chip might be held in a plate with a cutout and the test probe clamped to the plate wherein the test probe and plate are biased toward each other. The bias could be applied between the ends of a U-shaped arm or a weight could be placed on top of the assembly. The possibilities are many. It would have been obvious to one of ordinary skill in the

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art at the time the invention was made to have adapted the plural tipped probes of the second set to the apparatus of the first set because one skilled in the art would realize that so doing would provide more reliable contact.

6. Claims 78-82, 87, 88, 90-93 and 96 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. There is no original disclosure for "a recessed metal bondpad". There is no original disclosure for the raised portions being formed as "pointed members". There is no original disclosure for the raised portions having a height of "about 5000A".

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire **THREE MONTHS** from the date of this action. In the event a first response is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will

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the statutory period for response expire later than SIX MONTHS from the date of this final action.

Karlsen:lsd

October 29, 1996


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PRIMARY EXAMINER
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